

Notice of Allowability

Application No.

10/533,949

Examiner

Michael W. Talbot

Applicant(s)

SUGATA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 02 November 2006.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Monica S. Carter
MONICA CARTER
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

1. In a telephone interview with Mr. John P. Shannon on 07 December 2006, Examiner has withdrawn position detailed in Advisory Action dated 27 November 2006 that (1) the proposed amendments filed 02 November 2006 raises new issues that would require further consideration and/or search and (2) for purposes of appeal, the proposed amendments will not be entered.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John P. Shannon on 07 December 2006.

The application has been amended as follows:

Claims:

(a) The proper status identifier for claims 3,4 and 6, indicated as (previously amended), has been revised so as to read (previously presented).

(b) The proper status identifier for claim 7, indicated as (previously added), has been revised so as to read (previously presented).

3. The following is an examiner's statement of reasons for allowance:

Claims 1-8 are allowed.

Claims 1 and 2 are the independent claims.

4. The prior art of record fails to anticipate or make obvious (1) "opening degree changing means for changing the degree of opening of plural openings at the rear ends of the cutting fluid feed passages to change the flow rate of atomized lubricant into the cutting fluid feed passages", in combination with, a multi-shaft spindle head of a machine tool having a plurality of

spindles, a common closed chamber provided at rear parts of the spindles wherein rear ends of said cutting fluid feed passages are allowed to communicate with said common closed chamber, and (for independent claim 1) cutting fluid feed passages provided at rotating centers of the spindles or (for independent claim 2) cutting fluid feed passages formed as inner holes of cutting fluid feed tubes installed in a non-rotating state provided at rotating centers of the spindles.

WO 99/37439 is the closest art of record.

WO 99/37439 shows in Figures 1-4,6,12 and 13 a multi-shaft spindle head (103) comprising a plurality of spindles (111) having tools (119) at the tips thereof being disposed in a same direction, cutting fluid feed passages (b) provided to rotate centers of the spindles, a common closed chamber (108) provided to rear parts of the spindles in communication with rear ends of the cutting fluid feed passages for delivering supplied atomized lubricant fluid (Abstract) from the common closed chamber through the rear ends of the cutting fluid feed passages to the tips of the tools. WO 99/37439 shows the cutting fluid feed passages (b) can have an inner supply tube (25) retained in a non-rotating state even when the main spindle (111) is rotated (Abstract). WO99/37439 lacks an opening degree changing means for changing degrees of openings at the rear ends of the cutting fluid feed passages.

WO 99/37439 lacks a multi-shaft spindle head of a machine tool having (1) "opening degree changing means for changing the degree of opening of plural openings at the rear ends of the cutting fluid feed passages to change the flow rate of atomized lubricant into the cutting fluid feed passages".

Although it is well known to have a "opening degree changing means for changing the degree of opening of plural openings", simply put a valve, within multiple fluid passages to regulate fluid flow, there is no teaching in the prior art of record that would, reasonably and

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absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of WO 99/37439, noting that in WO 99/37439, an "opening degree changing means", i.e. a "valve", and its structure is not taught at all. Furthermore, if one of ordinary skill in the art would have considered adding a "valve" to WO 99/37439 as being obvious, there is no teaching in the prior art of record that would, reasonably and absent impermissible hindsight, motivate one having ordinary skill in the art to so modify the teachings of WO 99/37439 to include a "valve" positioned specifically at the claimed location of "at the rear ends of the cutting fluid feed passages" having "a common closed chamber". Thus, for at least the foregoing reasons, the prior art of record neither anticipates nor rendered obvious the present invention as set forth in independent claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.


In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT
Examiner
12 December 2006


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SUPERVISORY PATENT EXAMINER